

# Evaluation of a Formal Mentoring Program in an Obstetrics and Gynecology Residency Training Program: Resident Feedback and Suggestions

ALEXANDER M. QUAAS, MD, PhD  
LORI R. BERKOWITZ, MD  
ERIN E. TRACY, MD, MPH

## Abstract

**Objective** A formal mentoring program for residents was introduced at our Department of Obstetrics and Gynecology in 2004. The objective of this study was to assess residents' attitudes toward and suggestions for the mentoring program.

**Study Design/Methods** An anonymous questionnaire with Likert-scaled questions on multiple areas of the program was distributed to all residents. The responses were scored with a rating of 0, 1, and 2, and mean ratings were calculated.

**Results/Conclusions** The response rate was 28 of 40 (70.0%). Areas of the mentoring program deemed most important were "career planning" (mean score 1.85) and

"scientific research" (1.51). The most negative aspects of the program were "lack of time" of the mentees (1.57) and the mentors (1.29). When matching mentees with mentors, the most important factors were "specialty/subspecialty" (1.71), "research interests" (1.65), "personality" (1.54), and the "ability to pick one's own mentor" (1.31). The majority of respondents (9 of 14, 64.3%) welcomed e-mail reminders to set up meetings with their mentor. These data have resulted in significant changes in our mentoring program. Future directions include continued surveillance of our program and collaboration between different residency programs in order to maximize the benefit of the resident mentor program.

## Background and Objective

Mentoring has been defined as "the process whereby an experienced, highly regarded, empathic person (the mentor) guides another individual (the mentee) in the development and re-examination of their own ideas, learning and personal and professional development."<sup>1</sup> A mentor is more than just a role model who serves as "a model in particular behavior or social role for another person to emulate."<sup>2</sup> In Greek mythology,<sup>3</sup> Mentor is the person to whom Odysseus entrusted his son Telemachus when he had to go to war in Troy. By his return many years later, his son had grown on a personal and professional level under the influence of Mentor.

Alexander M. Quaas, MD, PhD, is Instructor in Obstetrics and Gynecology at the Department of Obstetrics and Gynecology, Massachusetts General Hospital; Lori R. Berkowitz, MD, is Assistant Professor of Obstetrics and Gynecology at the Department of Obstetrics and Gynecology, Massachusetts General Hospital; and Erin E. Tracy, MD, MPH, is Assistant Professor of Obstetrics and Gynecology at the Department of Obstetrics and Gynecology, Massachusetts General Hospital.

Presented at the annual meeting of the Council on Resident Education in Obstetrics and Gynecology and the Association of Professors of Gynecology and Obstetrics, 2008.

Corresponding author: Alexander Quaas, MD, PhD, Department of Obstetrics and Gynecology, Massachusetts General Hospital, 55 Fruit Street, Boston, MA 02114, 617.726.5290, aquaas@partners.org

DOI: 10.4300/01.01.0022

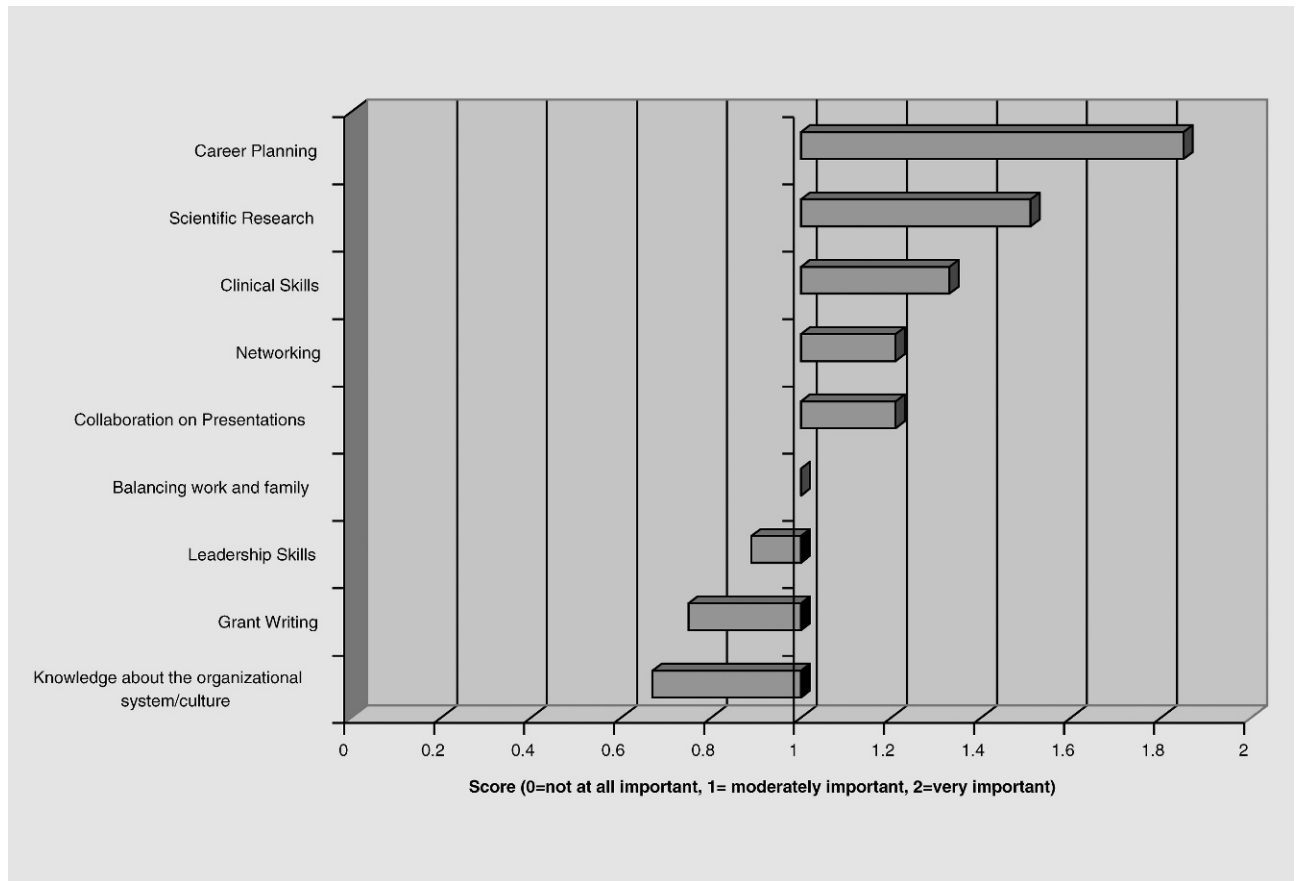
Much of the contemporary literature about mentoring stems from other professional sectors such as the business world. More recently, a growing body of evidence about the positive effects of mentoring has emerged from various medical specialties. A systematic review titled "Mentoring in Academic Medicine" from 2006 by Sambunjak et al<sup>2</sup> reported that mentorship has "an important influence on personal development, career guidance, career choice, and research productivity, including publication and grant success." However, the study also concluded that more evidence-based, practical recommendations on the topic were necessary.

In general obstetrics and gynecology, few studies on the topic exist in the literature. Tracy et al<sup>4</sup> reported in 2004 that a newly introduced faculty mentoring program had significant benefits for everyone who participated, as assessed by focus groups and a written survey.

In the same year, a formal mentoring program for residents was introduced at our Department of Obstetrics and Gynecology in order to ensure that all residents had an opportunity to benefit from more-senior faculty mentoring. Faculty participation was voluntary. Incoming interns were surveyed regarding their preferences in a mentoring relationship and assigned to faculty mentors.

The mentoring program director reviews the surveys that each starting intern fills out identifying which areas are most important to them regarding a faculty member mentor. Some cite the faculty subspecialty or research as the

FIGURE

**FIGURE 1 AREAS OF IMPORTANCE OF THE RESIDENT MENTORING PROGRAM**

most important factors. Others identify that demographic factors, including marital or parental status, are more important. The mentoring program director and residency director identify faculty members who might be most appropriate given the survey results. The identified faculty members are then approached to see if they feel they can make this commitment to the residents, with the understanding that if those faculty members already have a number of mentees (sometimes medical students, sometimes junior faculty), they might feel they cannot reliably devote themselves to this program. Once faculty members have committed to the program, the interns are notified of the mentoring assignments. Mentoring literature, “mentor tips,” and “mentee tips” are distributed to participants of the program.

The aim of the program was to assist residents as they navigate through their residency years and prepare for their careers in obstetrics and gynecology. It was designed to offer residents a faculty member in whom they could confide without fear of confidentiality breaches or impact on career evaluations. It was important to create an official program to stress that the resident mentor is a support

person and not an evaluator; this created an extra level of support for program directors, who are in the unique position of rendering support and guidance while having to provide evaluation and feedback for overall performance. The expectation was made clear to both residents and faculty members that communication between mentors and mentees should be made on a regular basis.

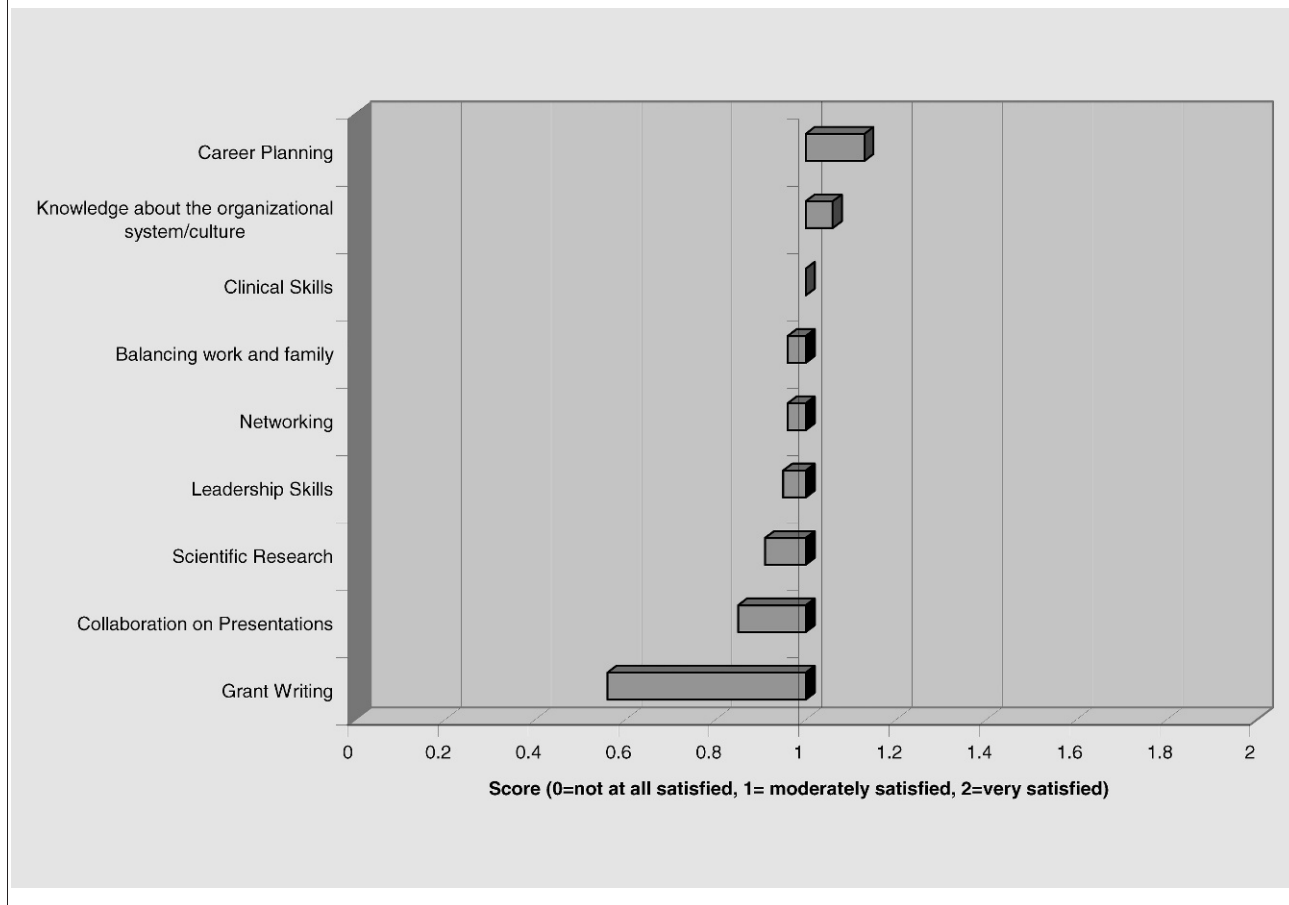
The objective of this study was to assess residents’ attitudes toward and suggestions for the mentoring program introduced at our institution, in order to maximize program efficacy and to provide a potential model for other institutions.

### Materials and Methods

An anonymous questionnaire was mailed to all 40 residents of our training program in February 2007. It included Likert-scaled questions with 3 answer choices (in the format “strongly agree”/“agree”/“disagree”) regarding the importance of and their satisfaction with areas of mentoring, the accomplishments and negative aspects of the program, factors in matching mentees with mentors, and the helpfulness of the distributed mentoring literature. Data

FIGURE

FIGURE 2 PERCEIVED SATISFACTION WITH AREAS OF THE MENTORING PROGRAM



regarding frequency of mentoring meetings and residents' views of regular e-mail "mentoring reminders" were collected. A similar survey used in a faculty-mentoring study had previously been reviewed<sup>4</sup> by the Massachusetts General Hospital Institute for Health Policy to ensure face and content validity. Given that our study only included residents, it was exempt from institutional review board approval. Responses were scored with a rating of 0, 1, or 2 according to their perceived negative or positive impact. The data were tabulated and mean ratings for each item calculated. Unpaired *t* tests were used to compare the mean ratings for each item, with the aid of a standard computer program for statistical analysis (SPSS Inc, Chicago, Ill).

## Results

The response rate was 28 of 40 (70.0%). Areas of the mentoring program deemed most important were "career planning" (mean score 1.85) and "scientific research" (1.51) (FIGURE 1). Moderately important areas were "clinical skills" (1.33), "collaboration on presentations" (1.21), "networking" (1.21), and "balancing work and family" (1.00). Least importance was ascribed to "knowledge about institutional structure" (0.67), "grant

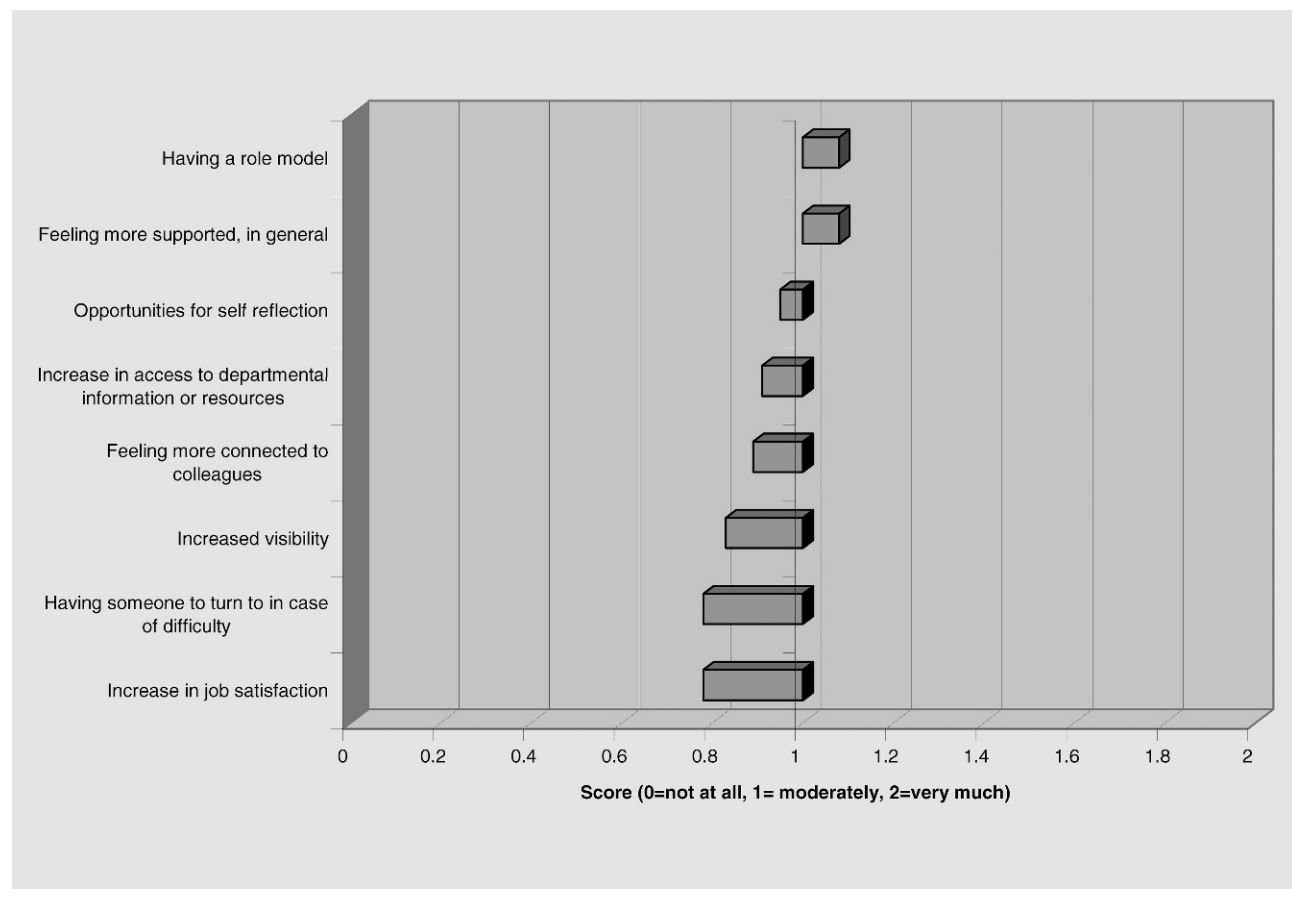
writing" (0.75), and "leadership skills" (0.89). When individually compared to the highest scored item, "career planning," all other items were statistically significantly less important ( $P < .001$ ).

Satisfaction with the same areas of the mentoring program was moderate (mean scores 0.56–1.13) (FIGURE 2). "Career planning" achieved the highest score, but the difference in score was only significant when compared to the lowest-rated item, "grant writing" ( $P = .02$ ).

The goals of the program were overall judged to have been "moderately attained" (score range 0.73 to 1.08), with the highest scores for "having a role model" and "feeling more supported in general" (both 1.08) and the lowest for "increase in self-confidence" (0.73) (FIGURE 3). The scores were not statistically significantly different when compared to each other. Note, the actual *P* values are 8 different non-significant (ie, greater than 0.05) values, and it is not necessary to list them all.

The most negative aspects of the program were "lack of time" of the mentees (1.57) and the mentors (1.29) (FIGURE 4). There was no statistically significant difference between scores for "lack of mentor's time" and "lack of

FIGURE

**FIGURE 3 PERCEIVED ACHIEVEMENTS OF THE RESIDENT MENTORING PROGRAM**

mentee's time." However, both of these items were judged significantly more relevant ( $P < .001$ ) than "lack of perceived confidentiality" (0.15), "perception that mentor might have a role in evaluating job performance" (0.44), and "personality conflict" (0.35), which did not have a major negative impact.

When matching mentees with mentors, the most important factors for the mentees were "specialty/subspecialty" (1.71), "research interests" (1.65), "personality" (1.54), and the "ability to pick one's own mentor" (1.31) (FIGURE 5). Factors that were statistically significantly deemed less important ( $P < .01$ ) were "parental status" (0.52), "gender" (0.59), and "marital status" (0.61).

Provided literature on mentoring concepts was judged to be "moderately helpful" to "not at all helpful" (mean score 0.57). For mentor-mentee interaction, the majority of residents met with their mentor "less frequently than monthly" (15 of 26, 57.7%), while others met weekly (2 of 26, 7.7%) or monthly (4 of 26, 15.4%). Some (5 of 26, 19.2%) had never actually met with their mentor. The majority of respondents welcomed e-mail reminders to set

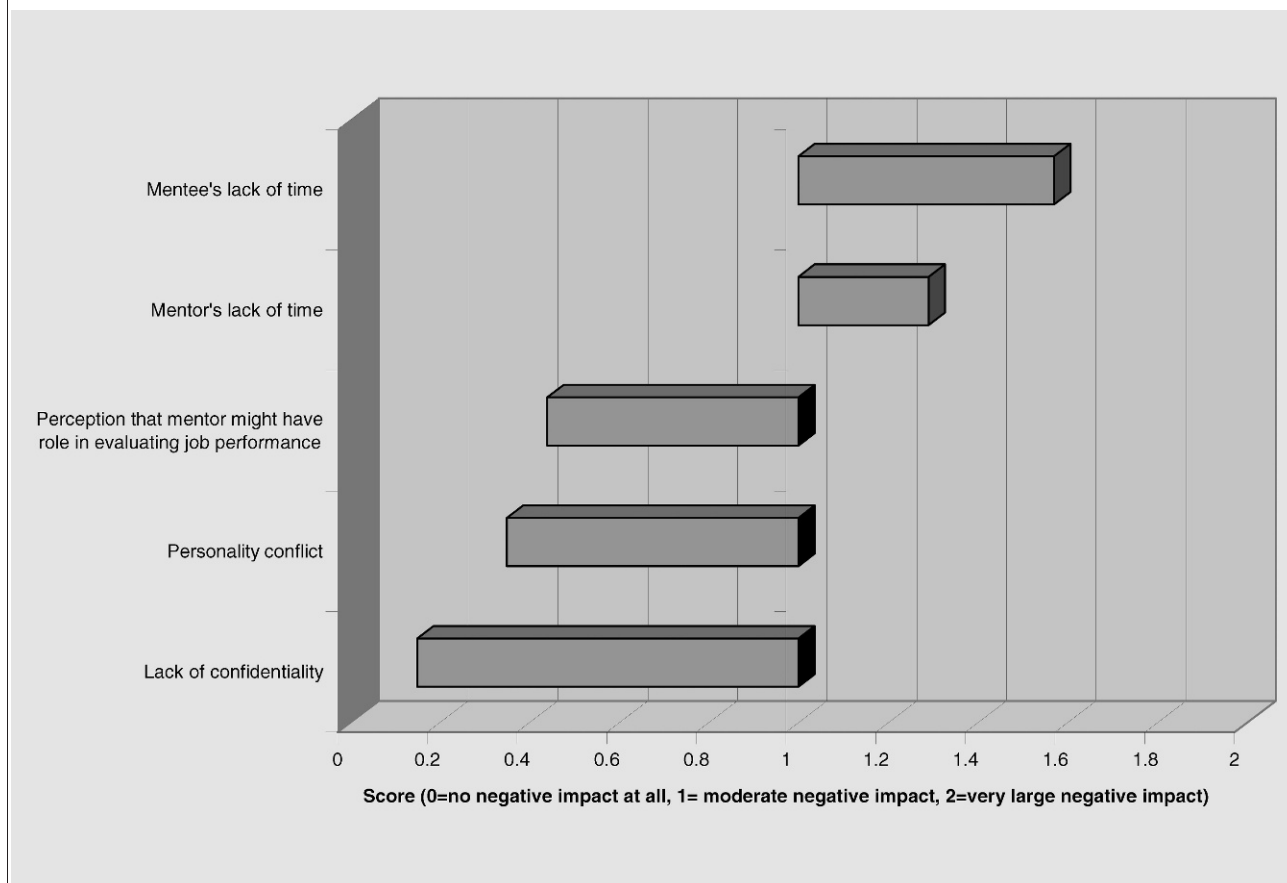
up meetings with their mentor (9 of 14, 64.3% vs. 5 of 14, 35.7%).

## Discussion

At our institution, "career planning" and "scientific research" were areas of the mentoring program deemed most important to the mentees. Other areas with high scores were "clinical skills," "collaboration on presentations," and "networking," suggesting that resident mentees see the role of their mentors predominantly as an aide for reaching their professional (rather than personal) goals.

The formal mentoring program introduced at our institution in 2004 was judged by residents as moderately helpful for "having a role model" and "feeling more supported in general." One of the most important aims of this program is for residents to feel personally supported as they continue to develop as physicians. Many cite the benefit of "having someone to turn to." Some note having solace in this knowledge, even when the regular meetings aren't consistently held as recommended. Some of the areas in which faculty members provide assistance are particularly beneficial in a structured mentoring setting in which

FIGURE

**FIGURE 4 PERCEIVED NEGATIVE ASPECTS OF THE MENTORING PROGRAM**

confidentiality is a key component. Residents can confide in their mentors with assurance that their evaluations aren't a part of this process.

Interestingly, however, overall satisfaction with the program was moderate. Mentors' and mentees' lack of time was perceived to be the greatest barrier to success. Most residents favor self-selection of their mentor and would like to be paired with a mentor who matches their subspecialty/research interest and personality.

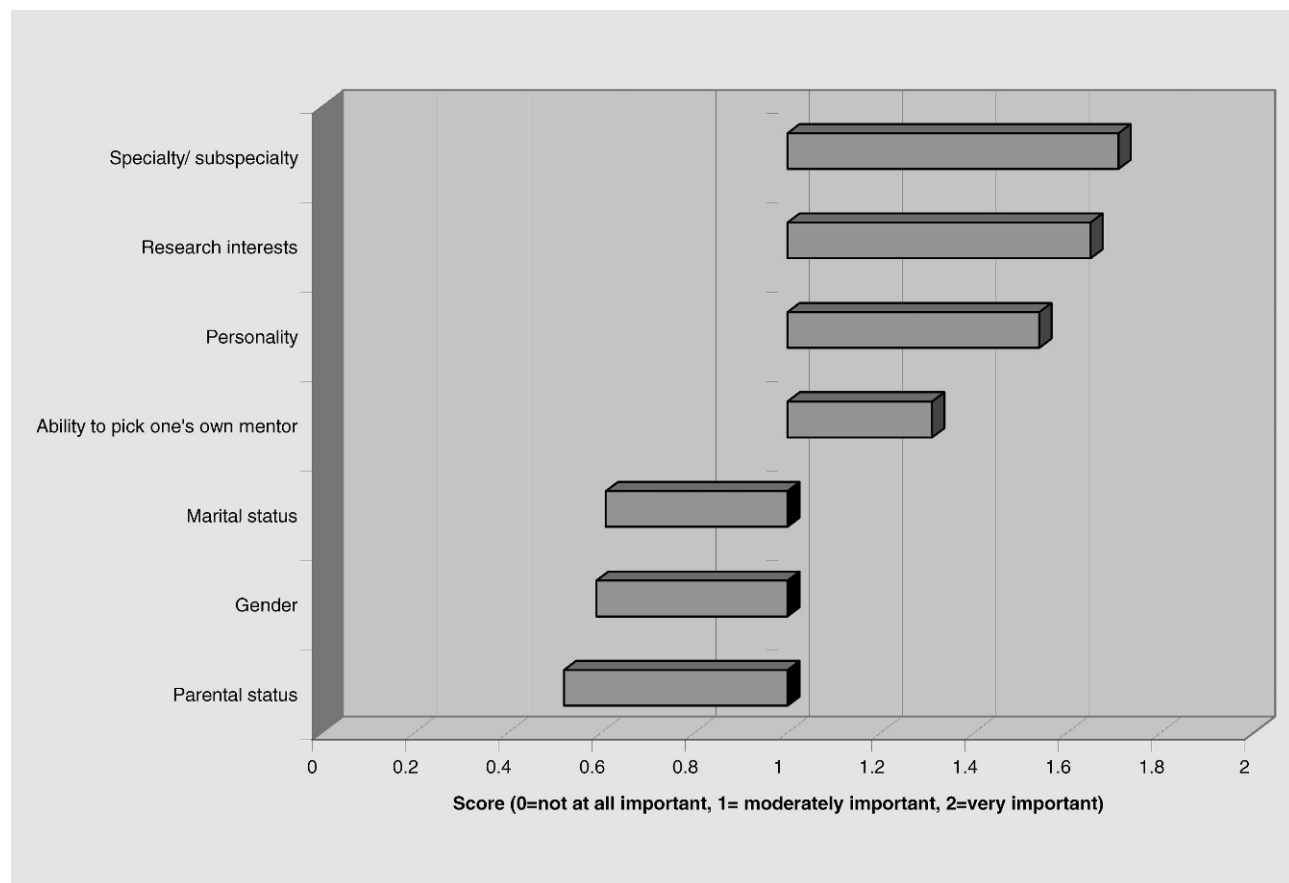
Although it was made clear to both residents and faculty members that communication between mentors and mentees should be made on a regular basis, there was a marked variation in the frequency of mentor-mentee meetings. A worrisome finding is that almost 20% of residents had never actually met with their mentor. A possible explanation for this is conflicting schedules, sometimes involving resident rotations at multiple clinical sites.

It has previously been suggested that the paradigm of the mentor-mentee relationship is seriously threatened by increased clinical, research, and administrative demands on both faculty and house staff. In a study from an internal medicine mentoring program, Levy et al<sup>5</sup> reported that "time-

consuming professional responsibilities made meetings difficult, but most pairs supplemented their interactions with e-mail." In an attempt to encourage utilization of our program, e-mail reminders were periodically sent. Almost two-thirds of respondents were in favor of e-mail reminders to set up meetings with their mentor.

These findings have resulted in a planned change in our mentoring program to allow for a one-year intern-mentor assignment, after which mentees will select their desired mentor for subsequent years, rather than a four-year mentor-mentee pairing at the start of the residency training program. Previous literature<sup>6</sup> suggests that mentors and mentees strongly prefer a voluntary mentoring program; in keeping with this evidence, we have no plans to make it mandatory. However, given the documented benefits of mentoring in academic career development, it is our goal to allow for "ease of use" of such a program, with assignment of mentors for the first year only, according to the identified most-important matching factors. At the beginning of the second year of residency, all residents are invited to select an individual to serve as a mentor through the mentoring program, a relationship the department helps to formally

FIGURE

**FIGURE 5 PERCEIVED IMPORTANCE OF FACTORS IN MATCHING MENTORS WITH MENTEES**

facilitate. Thus far, almost all of the residents have chosen to continue the mentoring relationships already established in their internship year, although some mention additional mentoring relationships they've developed in the interim. We aim for a 100% continuance rate of the program, with increased satisfaction scores on future surveys after adjustments have been made. In order to identify important aspects of the program that were not captured by the survey, the survey instrument is being reviewed by the mentoring program director and residency program director for potential improvement.

As part of the semiannual residency review, the program director individually approaches resident participants who noted difficulties with their mentoring relationships or did not meet with their mentors to assess modifiable barriers in order for the program to be more helpful. If appropriate, they are encouraged to identify other faculty members with whom they might have more chemistry. Understanding the characteristics of residents who were more reluctant to use the mentoring program may be an area of future study.

To assist with future program changes, including those involving the utilized survey instrument, the mentoring

literature is periodically reviewed by the mentoring program director. In addition to continued surveillance of our program, collaboration between different residency programs may be beneficial in order to compare and learn from individual mentoring experiences.

### Conclusions/Practice Points

- Residents in an academic obstetrics and gynecology residency program consider academic career development the most important factor of a formal mentoring program.
- Lack of time of both parties is the biggest perceived barrier to success of the program.
- Satisfaction with the program may be improved with more-specific mentor selection and better organization, for example, e-mail reminders.

### References

- 1 Standing Committee on Postgraduate Medical and Dental Education. *Supporting Doctors and Dentists at Work: An Inquiry into Mentoring*. London, England: SCOPME; 1998.

- 2 Sambunjak D, Straus SE, Marusic A. Mentoring in academic medicine: a systematic review. *JAMA*. 2006;296(9):1103–1115.
- 3 Homer. *The Odyssey*. Rieu EV, trans. London, England: Penguin Books Ltd; 1946.
- 4 Tracy EE, Jagsi R, Starr R, Tarbell NJ. Outcomes of a pilot faculty mentoring program. *Am J Obstet Gynecol*. 2004;191(6):1846–1850.
- 5 Levy BT, Katz JT, Wolf MA, Sillman JS, Handin RI, Dzau VJ. An initiative in mentoring to promote residents' and faculty members' careers. *Acad Med*. 2004;79(9):845–850.
- 6 Benson CA, Morahan PS, Sachdeva AK, Richman RC. Effective faculty preceptoring and mentoring during reorganization of an academic medical center. *Med Teach*. 2002;24(5):550–557.